

REMARKS

This Amendment is being filed in response to the Office Action mailed December 12, 2008, which has been reviewed and carefully considered. Reconsideration and allowance of the present application in view of the amendments made above and the remarks to follow are respectfully requested.

Claims 1-2 and 4-21 are pending in the application, where claim 3 had been previously canceled without prejudice and claims 17-21 have been added by the present amendment. Claims 1, 8-9 and 12 are independent.

In the Office Action, the Examiner objected to the specification for lacking headings. Applicants respectfully decline to add the headings as they are not required in accordance with MPEP §608.01(a), and could be inappropriately used in interpreting the specification. Accordingly, withdrawal of the objection to the specification is respectfully requested.

In the Office Action, the Examiner objected to claim 8 for a certain informality. In response, claim 8 has been amended to remove the informality noted by the Examiner. It is respectfully

submitted that the objection to claim 8 has been overcome and withdrawal of this objection is respectfully requested.

In the Office Action, claims 1-2, 8 and 15-16 are rejected under 35 U.S.C. §103(a) over U.S. Patent No. 6,118,613 (Kojima) in view of U.S. Patent No. 5,301,174 (Matoba). Claims 9-14 are rejected under 35 U.S.C. §103(a) over Matoba in view of Kojima. Claims 4-5 and 7 are rejected under 35 U.S.C. §103(a) over Kojima in view of Matoba and U.S. Patent No. 5,635,848 (Hammond). Claim 6 is rejected under 35 U.S.C. §103(a) over Kojima in view of Matoba, U.S. Patent No. 4,783,774 (Enomoto) and Hammond. It is respectfully submitted that claims 1-2 and 4-21 are patentable Kojima, Matoba, Hammond and Enomoto for at least the following reasons.

Kojima is directed to an electromagnetic actuator drive circuit 100 for driving an actuator 1. The actuator drive circuit 100 includes a negative resistance circuit shown as reference numeral 36 in FIG 5 and reference numeral 37 in FIG 6. As clearly shown in FIGs 5-6, the negative resistance circuit is connected in parallel with the actuator 1.

In stark contrast, the present invention as recited in

independent claim 1, and similarly recited in dependent claim 18, amongst other patentable elements, recites (illustrative emphasis provided):

wherein the electrical damping element is connected in series with the controller and the actuator.

An electrical damping element is connected in series with the controller and the actuator. Rather, the Kojima negative resistance circuit is connected in parallel with the actuator, thus teaching away from the present invention as recited in claims 1 and 18.

Further, Kojima does not disclose or suggest the present invention as recited in independent claim 8 which, amongst other patentable elements, recites (illustrative emphasis provided):

at least one switch for selectively connecting the input resistor to the first resistor or the second resistor in response to a control signal from a controller.

A switch for selectively connecting the input resistor to the first or second resistor is nowhere disclosed or suggested in Kojima. Rather, Kojima clearly shows in FIGS 5-6 that the input resistor R_i is connected to both the first and second resistors R ,

R₀.

In addition, it is respectfully submitted that Kojima does not disclose or suggest the present invention as recited in independent claim 9, and similarly recited in independent claim 12 which, amongst other patentable elements, recites (illustrative emphasis provided):

the actuator driver circuit comprising ...
an electrical damping element having a negative
resistance connected between the second terminal
of the actuator and ground, wherein the first
terminal is configured to receive the drive
signal and is different from the second terminal.

An electrical damping element having a negative resistance connected between a second actuator terminal of the actuator and ground, where the first terminal is configured to receive the drive signal and is different from the second terminal is nowhere disclosed or suggested in Kojima. Rather, Kojima clearly shows in FIGs 5-6 that the negative resistance circuit is connected between node E and ground, where node E is the same node which is connected to the actuator input that receives the drive signal.


Matoba, Enomoto and Hammond are cited to allegedly show other features and do not remedy the deficiencies in Kojima.

Accordingly, it is respectfully submitted that independent claims 1, 8-9 and 12 are allowable, and allowance thereof is respectfully requested. In addition, it is respectfully submitted that claims 2, 4-7, 10-11 and 13-21 should also be allowed at least based on their dependence from independent claim 1, 8-9 and 12.

In addition, Applicants deny any statement, position or averment of the Examiner that is not specifically addressed by the foregoing argument and response. Any rejections and/or points of argument not addressed would appear to be moot in view of the presented remarks. However, the Applicants reserve the right to submit further arguments in support of the above stated position, should that become necessary. No arguments are waived and none of the Examiner's statements are conceded.

In view of the above, it is respectfully submitted that the present application is in condition for allowance, and a Notice of Allowance is earnestly solicited.

Respectfully submitted,

By 
Dicran Halajian, Reg. 39,703
Attorney for Applicant(s)
February 9, 2009

THORNE & HALAJIAN, LLP
Applied Technology Center
111 West Main Street
Bay Shore, NY 11706
Tel: (631) 665-5139
Fax: (631) 665-5101